

ABSTRACT

A self-locking drill chuck device, comprising a body, a nut, jaws, a front sleeve, a rear sleeve, a nut jacket and a rolling member, wherein three jaws are respectively and operatively inserted into three angled bores uniformly distributed around the body, the threads of the nut engages with that of the jaws to form a thread driving mechanism, wherein a ratchet wheel is fixedly mounted at a rear portion of the body, a disk spring is provided between the rolling member and a load carrying shoulder of the body, the front portion of the body has key slots and an annular connecting groove, the rear end of the nut jacket has a plurality of driving grooves and keys on which a locking elastic element and a driving elastic element are respectively fixed, A control ring fixedly fitted in the rear sleeve has an internal surface thereof formed with a plurality of driving keys and a cam face including a plurality of bulged portions and curved teeth. The front sleeve has positioning keys and connecting clips formed in an internal surface thereof. The drill chuck of the present invention has a simple structure, convenience of operation and high working stability and reliability of self-locking capacity.